

THE
HIDDEN COMFORT
OF
COSTLY HOMES



Wall Book

Now the simplest
home can have it

JAN 20 1927

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*Now the simplest home
can have it*



THE CELOTEX COMPANY

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THE HOME OF EVERY BUILDER'S DREAMS

yet hitherto realized by few



SMITH—all the Smiths, in fact—have launched upon the hectic business of planning and building a home.

A deluge of suggestions, demands, entreaties descends upon the head of the house. Mother wants this, daughter that, son something else . . . lots of closet space, plenty of electric sockets, the laundry here, a sewing room there, don't forget the bookshelves . . .

Smith himself says little. He listens to everybody and holds his peace. Yet Smith has been doing a lot of thinking. One basic, fundamental idea is fixed firmly in his mind.

Smith is determined to have the best constructed, most comfortable and healthful home he can buy for his money. He intends to have a home that will be snug and warm in winter. A home free from draughts, "chilly rooms," and "cold sides" when the wind blows from certain quarters. A home in which it will be easy to maintain an even, comfortable temperature without constant attendance upon the heating plant.

But if Smith wants a home that is proof against the fury of winter's blizzards, he also wants one that will be cool and comfortable through the hottest months of summer. There will be rooms directly under the roof. Even these (decides Smith) must be comfortable on the most stifling August night.

Finally, Smith wants a home that will be quiet

and restful—that is, a home in which noises do not reverberate. He knows what *that* means in terms of steadier nerves and mental poise.

These, then, are the things that Smith has his heart set upon. He is willing to leave a lot of the details to the family if he can be sure of these basic comforts in the home he builds.

Smith is not a rich man. He must count carefully the cost of building. Will he realize his dreams?

Until four years ago, the pity is, thousands of Smiths were every year disappointed. They built honestly and well with the usual materials. But the comfort they sought could not be obtained through ordinary construction. It could be bought only for a price; and that price was beyond the reach of most home builders.

Yet, costly homes have had it for years. These homes *are* cozily warm on bitterest winter days—and still their owners save enough on coal to run their motor cars. They are surprisingly cool in summer. And a restful quiet pervades them.

People in these costly homes live better, happier lives. They sleep better—no rooms are excessively hot on summer nights. Their health is better—temperatures in every corner of the house are always even, and there are no draughts. Their nerves are steadier because their homes are quieter. And so they are more efficient.

What is the secret? Not thick brick walls, not tiled roofs, not luxurious furnishings. It lies in a hidden detail of construction—some-

thing that for years has been built into the walls of expensive homes.

This hidden source of comfort in costly homes was obtained by the use of insulation—*heat insulation*. Formerly it was an added building expense—an extra cost prohibitive to the average home builder.

Then, four years ago, the discovery of the amazing properties of bagasse (cane fibre) gave the world its first *insulating lumber*. Just as the electric lamp has given illumination to cottage and mansion alike, Celotex Insulating Lumber has made complete heat-insulation available for *every* home. Celotex, for the first time, gives insulation practically without extra expenditure. It brings to even the simplest home

a comfort that only costly ones have had before.

We waited to tell the story of Celotex. We hesitated to give the world the startling facts about Celotex until thousands of incontestable proofs had accumulated. Now, backed by these years of proof, the whole story of Celotex is given to you. In this book we shall not attempt to submit the mass of technical evidence which has accumulated; it is available, however, to anyone wishing to verify any statement made in the following pages, and will be supplied upon request. Here it is our purpose to give the story of Celotex in simple, non-technical terms. We believe it to be the most important building story ever told.



Exterior and interior views of the residence of D. P. Morse, Jr., Bronxville, N. Y. Howard and Frenaye, Architects. Celotex used under plaster and for floor deadening

THE PRINCIPLES OF HEAT INSULATION

*What it is and what it does when built
into your home*



THE word insulation is derived from the Latin *insula*, meaning island. It means a complete separation from and independence of surrounding conditions.

There are several types of insulation, the most commonly known, perhaps, being electrical insulation. In these days of the radio nearly everyone knows that an electric current will flow from a wire into any conducting material the wire touches. To prevent this, the wire is covered with a substance which will *not* permit the passage of an electrical current—in other words, an insulating material.

Heat flows through solid materials more slowly but in much the same way that electricity does. A common illustration of this *heat conduction*, as it is called, is an iron poker, one end of which is held in the fire; the heat, applied at one point, soon travels the entire length of the poker.

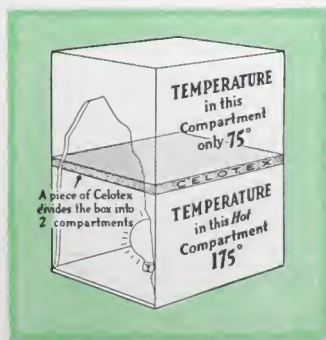
But just as there are substances which prevent the passage of electric current, there are substances which retard the passage of heat. There is

heat-insulation as well as electrical-insulation.

The principles of heat insulation have long been known. One of the most interesting, as well as one of the oldest, applications is to be found in the Eskimo's igloo. "Dead air" confined in the thick snow walls of the Eskimo's home provides insulation of such efficiency that even in coldest arctic weather, a small moss-lamp renders the interior comfortable for its inhabitants.

Science has evolved insulation of high efficiency and has applied it in many ways. Your ice-box, for instance, is insulated to keep heat *out*. A special material of low heat-conductivity is placed in its walls. If it were not there, your ice would melt as quickly as though it were placed upon the kitchen table. Similarly, cold storage plants and refrigerator cars are insulated against the passage of heat through their walls, while fireless cookers are insulated to keep heat *in*.

While there is no such thing as perfect insulation, various materials differ greatly in their ability to retard the passage of heat. Scientists have worked out very accurate laboratory tests for determining the in-



The heated compartment test—a Celotex box with one layer of Celotex dividing it into two compartments. The lower compartment is heated by means of an electric lamp. When it is hot on one side of the Celotex it is cool on the other. Celotex retards the heat flow



The occupied house at the left is not insulated. Wasted heat escaping through the roof has melted the snow. This house has cold upstairs rooms and wastes fuel.



The occupied house at the right is insulated. Heat does not readily escape through this roof. This house is warm and comfortable throughout and saves fuel.

insulating value of any material. These tests show that ordinary building materials—wood, brick, stucco, plaster, etc.—have little value as heat insulation. Heat waves pass through them just as do radio waves.

These facts have been borne out time and again in actual practice. Many careful tests have shown that there is unnecessary heat loss of from 25 to 35 per cent through the walls and roofs of homes built with ordinary materials. This does not include heat-leakage through cracks and crevices around windows, doors, etc. It includes only the leakage through the solid plaster, brick, wood, or whatever materials have gone into the construction of the house.

From his window the writer can observe a striking illustration of this heat-leakage. Snow has fallen upon the roof of a certain building. Only half of this building is occupied and heated. The roof over the vacant, unheated part is still covered with a heavy blanket of snow. The roof over the occupied, heated portion is clean and free of snow. *Escaping heat has melted it.*

You yourself can observe the same thing. Notice how much longer the snow remains upon the roofs of sheds, garages, etc., than it does upon the roofs of heated homes. Notice, too, how much longer snow clings to porches,

eaves and other roof areas that do not cover heated parts of the house.

Throughout the world a tremendous waste of fuel is thus attributable to heat-leakage every winter. One writer has estimated the loss in the United States alone at \$100,000,000 annually. Any home owner can easily figure out the percentage which he is contributing to this enormous waste.

In warm climates, on the other hand, ordinary building materials offer little protection against the heat of the sun. Attics which become bake-oven hot during the day allow their heat to escape through the ceilings below, with the result that upstairs rooms especially are stifling hot at night and sleep in them is all but impossible. In almost any climate, indeed, there are warm periods when a house constructed of ordinary materials becomes uncomfortable.

Thick walls do not set matters aright. Heat insulation is a matter not of thickness of materials, but of *kind* of materials.

Air spaces between walls were long thought to be of value. Scientific investigation has proved conclusively, however, that, while air is one of the best insulating agents known, it is effective only when it is confined and "dead". Air between partitions circulates freely and carries the heat by convection from one wall surface to another.

Weather stripping and storm sash are valuable for the purpose they are intended to serve. They keep cold air from sifting into the house, but they cannot, of course, stop the passage of heat through the solid walls.

There is but *one* way in which this heat passage can be stopped and houses given the full measure of all-year comfort that every home builder seeks. That is: *with insulation.*

Architects have long recognized this fact. And so, between the walls of expensive homes they have for years placed various insulating materials.

These materials, some in greater and some in lesser degree, perform the function expected of them. They provide heat-insulation. They keep homes snugly warm in winter and, at the same time, reduce fuel bills. They keep homes cooler in summer. They absorb sound.

Yet, unfortunately, they have always represented an extra building expense—a cost prohibitive to most home builders.

They are, first of all, an *added* material—something to be paid for in addition to the bills for plaster, lath, framing lumber, sheathing, siding and other materials which go into the making of a home.

Secondly, they figure as an extra labor cost. Often difficult to handle and slow in application, they represent a sizeable item in the labor-cost of building.

Hence the comforts provided by insulation were enjoyed by relatively few. Insulation was found universally in costly homes, but the average home owner found it to be beyond his means. It was a luxury few could afford.

This was the situation prior to 1921. In that year Celotex Insulating Lumber was put on the market.

Celotex, on its introduction, created a sensation among technical men. It attracted the attention of building experts the world over, not only because of its amazing intrinsic qualities, but because of the effect which Celotex would have upon established building practices.

For Celotex, by affording complete insulation (within the means of every home builder) at practically no extra cost, promised to completely revolutionize home building ideas and establish wholly new standards of home construction and home comfort.

The early prophecies which architects, engineers and scientists made with regard to Celotex Insulating Lumber are being fulfilled. Celotex has been built into thousands of homes in every part of the United States and in many foreign countries. In all climates and under every conceivable condition Celotex has completely demonstrated its amazing qualities.

Wherever it is used Celotex Insulating Lumber is revolutionizing home building ideas and establishing new standards of home comfort. As fast as neighborhoods, communities, cities learn of Celotex the old type of heat-leaking home disappears and the new type Celotex home takes its place.

What, exactly, is Celotex? How and from what is it made? To what does it owe its remarkable qualities? How is it used? In the succeeding chapters we shall in simple, non-technical language answer these questions which are of such importance to every builder or buyer of a home.



To illustrate that approximately one-third of the heat demanded to warm the average home can be saved by insulating the side walls and ceilings. This means that the proper use of Celotex enables you to reduce the size of your heating plant and radiator and cut your fuel bills approximately one-third.

CELOTEX — *the world's first insulating lumber*

*the only material for building
a completely insulated home, practically
without extra cost*



CELOTEX is not to be confused with ordinary insulating materials. Celotex is something unique, wholly different from any material made, grown or mined. It is as basic as steel, wood, glass and other universally used materials.

Celotex began with an idea—the idea of an insulating lumber—a lumber as strong as wood, but with the insulating qualities which wood lumber does not possess, yet depending in no way upon the forest for its raw material supply.

A long period of investigation and experiment developed the fact that cane fibre (bagasse), one of the longest and toughest fibres known in any plant or tree in the world, possessed the remarkable qualities necessary for the fabrication of this revolutionary building material.

Under the microscope this fibre reveals two unusual characteristics. First, each fibre contains countless tiny "hooks" which, when the fibres are interlaced, cling together with truly amazing tenacity. Secondly, bagasse contains millions of invisible sealed air cells, one of the most efficient insulating agents known to science.

A way was found to fabricate bagasse. Today, in a mammoth plant near New Orleans, gigantic machines are producing over two hundred million feet of Celotex Insulating Lumber a year.

This is the equivalent of a board twelve inches wide and over thirty-six thousand miles long—a board that would encircle the globe one and one-half times. The operation is continuous. In each machine, at all times, is enough Celotex in one unbroken piece to insulate five five-room cottages.

As this immense sheet emerges it is sawed into boards of stock sizes and shipped daily to all parts of the world.

Hour by hour, samples are sawed from the finished Celotex and are subjected to tensile strength and other tests in physical and chemical laboratories. No precaution is overlooked in making, no care is neglected in testing Celotex.

And so Celotex Insulating Lumber comes to you—a strong, rugged, durable lumber with qualities that no lumber ever had before. Pleasing in texture, it contains no knots, sap, or cross grains.

Celotex combines three distinctive qualities never before found in any *now* available and practical material.

Celotex provides insulation. In each square foot of Celotex are held captive millions of sealed air cells, in the fibres themselves and in the interstices between the fibres. These sealed air cells form an insulating agent of high efficiency. Test after test by unquestioned authorities has established the fact that Celotex Insulating Lumber has insulation value equal or superior to any insulating material on the market.

Built into the outside and inside walls of a home, Celotex is equal, as insulation, to three and one-third inches of solid wood, twelve inches of solid plaster, twelve inches of solid brick, or twenty-four inches of solid concrete.

Celotex absorbs sound. The sound-quieting value of Celotex places it high among the most efficient materials for sound insulation. This quality of Celotex has caused it to be used in hundreds of theatres, auditoriums, schools, churches, apartment buildings and office buildings.

Celotex is a structural material. But, combined with these qualities of insulation and sound absorption, Celotex has what no other available and practical insulating or sound absorbing material possesses. *In walls it has many times the structural strength of the wood lumber it replaces.*

Celotex, in other words, is not a "dead" material. It enters into the structure of the house just as do wood, brick, concrete and other struc-

tural materials commonly used in building.

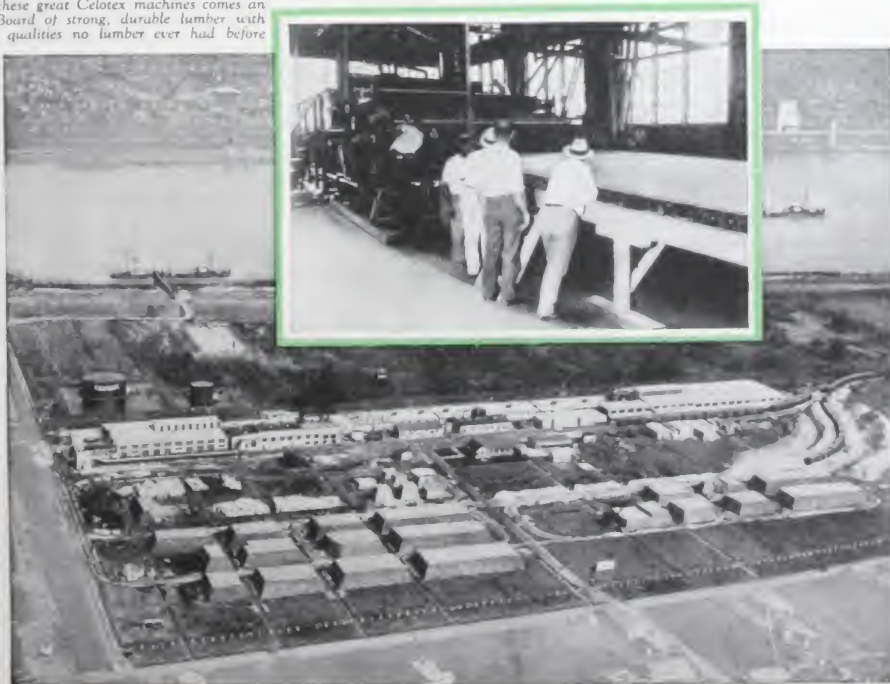
And so great is the structural strength of Celotex that, wherever it is used, wood or some other material is omitted. Consequently Celotex adds little, if anything, to the cost of the building in which it is used.

Consider what these facts mean to home builders. They mean that heat-insulation has forever been taken out of its association with costly homes alone and has now, by means of Celotex, been made available to every man who builds or buys a home.

Heat-insulation is no longer a luxury prohibitive in cost to all except a few. Any man who can afford to build or buy a house can now afford to have a completely insulated house. Celotex Insulating Lumber has made it possible.

How you can use Celotex in your home to obtain the advantages of complete heat-insulation practically without extra cost is explained in the following chapter.

Out of these great Celotex machines comes an endless Board of strong, durable lumber with amazing qualities no lumber ever had before



Aerial view of The Celotex Company Mills on the Mississippi River opposite New Orleans. Plant occupies 87 acres, is over one-third of a mile long, and manufactures the only Insulating Lumber in the world. Each day's production now replaces more than 35 carloads of ordinary wood lumber



Illustrating some of the uses of Celotex—an attractive residence, 5536 Washington Blvd., Indianapolis, Ind. Frank B. Hunter, Architect, J. W. Darnell, Contractor. Celotex used for sheathing and roof insulation

THE USE OF CELOTEX IN HOME CONSTRUCTION



CELOTEX is manufactured in stock sizes. Its thickness is $\frac{7}{16}$ of an inch; width 4 feet; lengths, 8 to 12 feet.

The principal uses of Celotex Insulating Lumber in home construction are:

1. As sheathing, 2. As plaster base, 3. Interior wall finish, 4. As roof insulation, 5. As floor deadening and insulation.

As sheathing, Celotex Insulating Lumber simply replaces the lumber ordinarily used as sheathing. No special framing or bracing is necessary. The joists, studs and rafters are framed as in ordinary house construction and the Celotex boards applied directly to the wood frame work. Standard $1\frac{1}{2}$ -inch galvanized roofing nails with $\frac{3}{8}$ -inch heads are used.

Any type of exterior finish may be applied over Celotex Insulating Lumber.

If wood siding is used, it is applied directly over the Celotex, and nailed through the Celotex to the studs.

If walls are to be shingled, shingle lath is applied over Celotex and nailed through to the studs; then the shingles are nailed to the shingle lath.

When walls are to be finished with stucco, self-furring metal or wire lath is applied directly to the Celotex and nailed through to the studs; or $\frac{1}{2}$ -inch x $1\frac{1}{2}$ -inch furring strips may

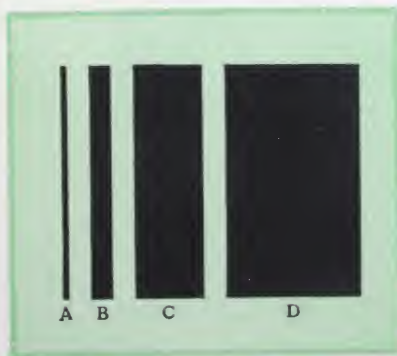
be applied to the Celotex, and over these furring strips wood, metal or wire lath may be applied. The stucco is then applied to the base thus prepared in accordance with the manufacturer's specifications.

When brick veneer is the exterior finish, anchors are staggered and spaced in the customary manner and nailed through the Celotex into the studs.

Any type of roofing—such as wood shingles, asbestos shingles, slate, earthen tile, metal tile, asphalt strip shingles, and prepared roll roofing—may be applied over Celotex Insulating Lumber. For all rigid roofing such as slate, tile, and wood shingles, a 2-inch shingle lath is applied directly over the Celotex, nailed through into the rafters. For flexible shingles strips must be used wide enough to prevent sagging. Roll roofing may be laid directly on the Celotex and nailed through to the rafters.

Celotex, as wall and roof sheathing, has a number of distinct advantages over the wood lumber ordinarily used.

First, it produces a stronger and more rigid wall. Tests conducted by eminent authorities, including some of the country's foremost universities, show that a wall sheathed with Celotex Insulating Lumber is many times more rigid than one as ordinarily sheathed with wood lumber. This is because Celotex is composed of long,



- (A) Celotex, used on exterior and interior walls, is equal to
 (B) $3\frac{3}{8}$ inches of solid wood
 (C) 12 inches of solid brick or plaster
 (D) 24 inches of solid concrete



Residence of J. F. Gerdes, Burlington, Iowa. V. T. Lindstadt, Architect. Celotex used for sheathing



Exterior of American Legion Cottage, Sarasota, Fla. Celotex, painted, used as exterior finish



Roof of the Lakeside Press, R. R. Donnelley & Sons Company, Chicago. 120,000 sq. ft. of Celotex used for roof insulation



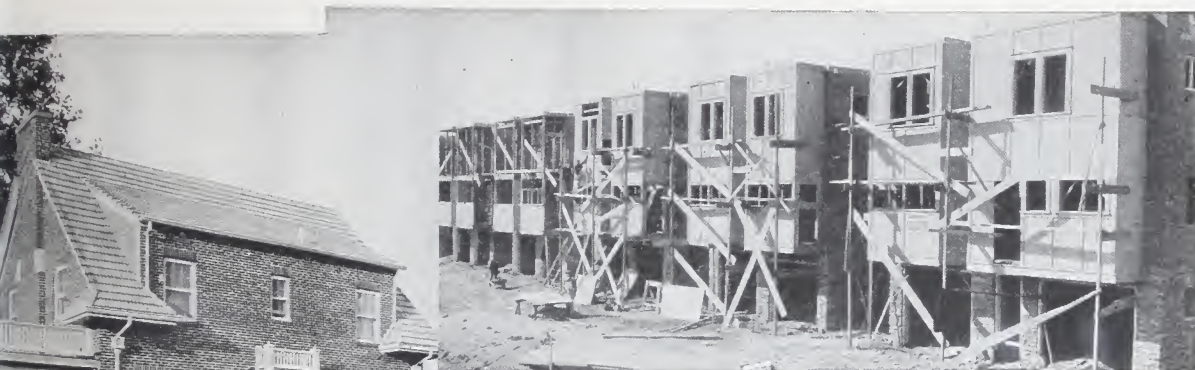
Residence designed and built by Louis Holtman, Contractor, Grand Rapids, Michigan. Celotex used for sheathing and under plaster



Summer cottage, Estes Park, Colorado. Edward J. Walsh, Owner used as interior and exterior finish

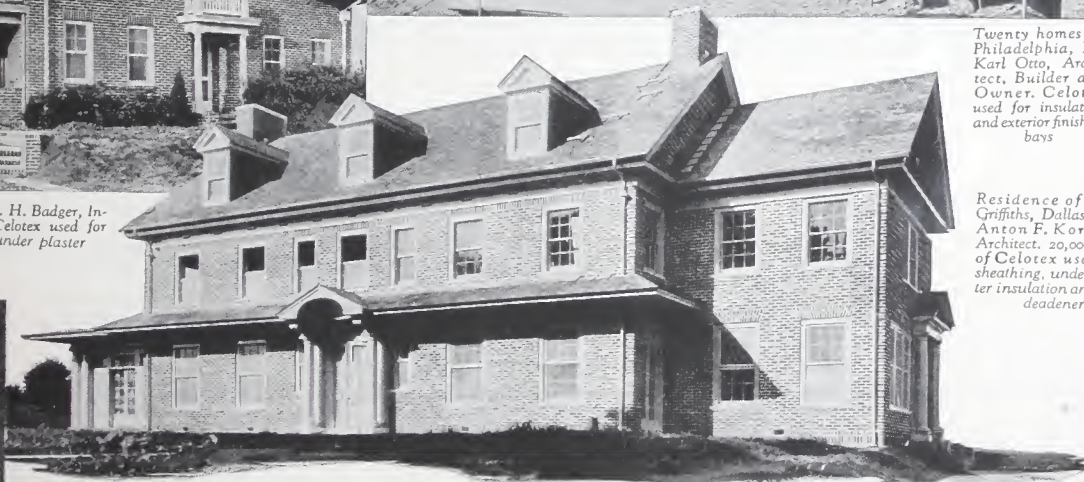
Bungalow Court, 938 Fuller Ave., Los Angeles, Calif. Leonard W. Covert. De Celotex used as insulation and sound deadener, with plaster applied direct to its surface





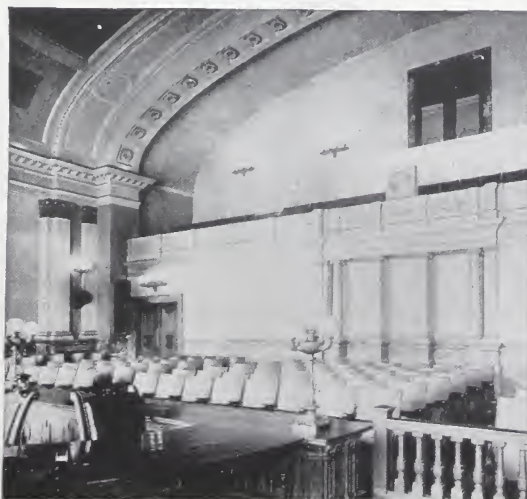
Twenty homes at Philadelphia, Pa. Karl Otto, Architect, Builder and Owner. Celotex used for insulation and exterior finish in bays

Residence of Chas. H. Badger, Indianapolis, Ind. Celotex used for sheathing and under plaster

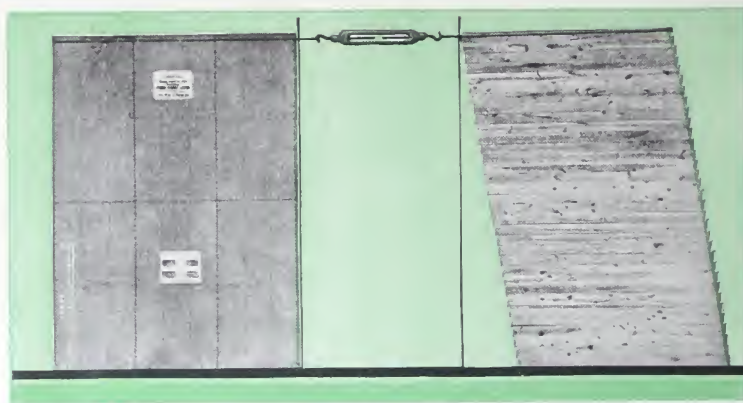


Residence of T. W. Griffiths, Dallas, Tex., Anton F. Korn, Jr., Architect. 20,000 sq. ft. of Celotex used for sheathing, under plaster insulation and floor deadener

Meeting Room, Board of Public Service, City Hall, St. Louis, Mo. Acousti-Celotex used for acoustical correction



From coast to coast and from Canada to the Gulf, as well as in many foreign countries, Celotex has been used in every type of home. It has been employed in the most costly mansions and in the simplest cottages alike. And everywhere Celotex Insulating Lumber has completely demonstrated its amazing qualities. Here are shown a few of the homes in widely separated parts of the country in which Celotex has been used with complete satisfaction to the owners. The Celotex dealer in your city can tell you of homes which you can visit personally, talk with the owner, and obtain interesting first-hand information on the use of this remarkable building material.



These pictures illustrate the results of a test made by the engineering laboratories of Robert W. Hunt & Company to determine the relative strength of Celotex and wood as sheathing. It was demonstrated that a wall sheathed with Celotex is several times as rigid as a wall ordinarily sheathed with lumber

tough clinging fibres which give it great tensile strength and is applied to walls in large sheets which afford a greater angle of bracing to the wall framework than the narrow wood board ordinarily used.

Celotex salesmen are daily demonstrating this fact in every section of the country by means of the striking Celotex "tug-o'-war". This test consists of two identical frames, one sheathed with Celotex and the other sheathed, in accordance with usual building practices, with wood lumber. Both frames are firmly anchored at the base. They are connected at the top by a turnbuckle. When, by means of the turnbuckle, equal strain or "pull" is applied to each frame, the Celotex frame always retains its rigidity while the wood-sheathed frame is badly distorted. This test, illustrating the superior strength of a wall sheathed with Celotex, has been conducted before thousands of building experts in all parts of the United States.

Secondly, Celotex is much more easily and quickly applied than wood sheathing. It requires no special tools or special skill. It is so light in weight—only 60 pounds to the hundred square feet—that the big, broad sheets are easily handled and speedily applied to wall or roof. For this reason the cost of applying Celotex Insulating Lumber is only about half

as much as the cost of applying wood lumber.

Third, there is no waste when Celotex Insulating Lumber is used. One thousand square feet of Celotex covers one thousand square feet of surface. It is cut in sizes which eliminate waste in application.

Fourth, no building paper is required when Celotex is used, as it provides complete weather protection.

More important than any of these, however, is the fact that Celotex Insulating Lumber, wherever used, provides heat-insulation practically without extra cost.

Under plaster, Celotex Insulating Lumber takes the place of lath. It is nailed direct to studs and joists on the interior walls and ceilings. Prepared gypsum or wood fibre plaster is recommended. The plaster is applied directly to the surface of Celotex in the same manner as it is applied to lath.

Plaster adheres to Celotex with much greater tenacity than to lath. This is due to the fact that plaster *bonds* with Celotex, whereas it is held to ordinary lath only by means of keys. The bond between Celotex and plaster will resist a pull of between 800 and 1200 pounds per square foot, while the keys which hold plaster to lath are broken by a pull of 200 to 300 pounds per square foot.

Celotex Insulating Lumber, when used as insulation under plaster, also produces a wall which is less likely to crack or stain and eliminates lath marks. It reduces costs, since it is more quickly and easily applied than lath, and effects a saving of approximately 40% in the plaster itself.

Again in this use, the outstanding advantage of Celotex Insulating Lumber is also that it *provides heat insulation practically without extra cost.*

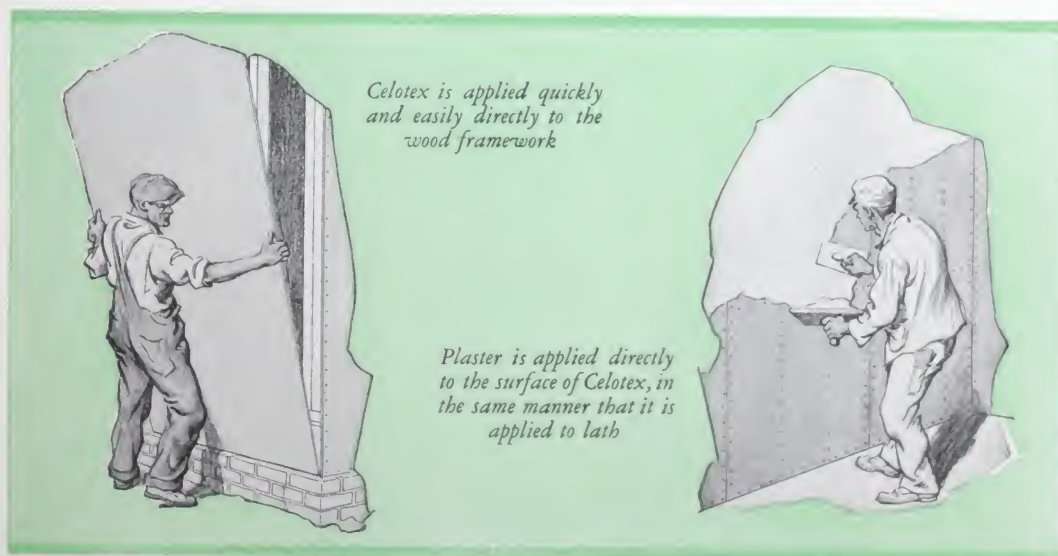
But in addition to all of the above advantages, Celotex built into the walls and ceilings of a house in any manner provides a sound-quieting effect which pervades the entire structure.

Thus Celotex Insulating Lumber performs three important functions in a single application. It provides structural strength greater than the materials it replaces; and it provides heat and sound insulation gratis. Yet, it adds little, if anything, to the cost of building.

It thus helps to equalize the temperature of first floor rooms from rugs to ceiling, resulting in more healthful as well as more comfortable living conditions. The usual method is to place a layer of Celotex between the sub-floor and the finish-floor. The Celotex may, however, be used as a basement ceiling, nailed to the under side of the first floor joists.

On the second floor Celotex is used as a sound-deadener, preventing the ready communication of sound from one floor to the other. Here the Celotex is placed between the sub-floor and the finish-floor, as well as in the first floor ceilings as a plaster base.

In Celotex, decorators and artists have discovered a delightful new material for interior finish. With its pleasing soft-texture surface, light tan, almost golden in color, Celotex lends itself admirably to the simplest and most elaborate wall treatments. It has been used



There are a number of other uses of Celotex in the home. Two of the most important may be mentioned.

Celotex is used in floors both as insulation and for sound-deadening. On the first floor it prevents the cold from a draughty basement or open foundation from penetrating the floor.

with gratifying success in some of the finest homes and public buildings in America.

Celotex is especially suited to panelled wall treatments. Charming effects may be obtained with the use of battens made of Celotex or wood. Stains, stencils, paints and other interesting finishes may be used. Or the Celotex

may be left in its pleasing natural finish.

To those who desire to finish a house entirely without plaster, The Celotex Company has devised a method of applying wallpaper, canvas or Sanitas directly to Celotex. This makes a rigid, permanent wall finish.

Whatever type of home you are going to build, you can use Celotex in its construction without revision of your basic plans. There is no inconvenience connected with the use of Celotex—rather the reverse. Any carpenter can apply it without special tools or special knowledge. He can pile it outside—for Celotex is effectively waterproofed—saw, nail and handle it just as he does ordinary wood lumber, and do a quicker and more economical

job with it than he could with wood lumber.

In any climate, whether warm the year around or bitterly cold in winter, you can use Celotex in your home with lasting benefit to yourself and family. Without trouble and at practically no extra expense you can employ Celotex in the ways described above, insuring in your home a year around comfort and healthfulness that hitherto has been enjoyed only by the owners of the most expensive homes.

If your home is already built, or if you are considering buying a home in which Celotex has not been used, the following page will tell you how you can, nevertheless, obtain in large degree the benefits of heat-insulation through special uses of Celotex.



View of a room showing Celotex used as interior finish and acoustical correction. The decorative panel is produced by stencil and stains in such manner as to preserve the acoustical properties of Celotex. Any decorative effect can be obtained in this manner

ATTIC INSULATION AND ALTERATION WORK IN COMPLETED HOMES

If your home is already built, you can still gain comfort, beauty, and reduce fuel bills through the use of Celotex



MOST important consideration in the insulation of a home is the roof area.

In winter a large portion of the heat loss experienced in homes of ordinary construction occurs through the roof. This is due to the fact that heat rises.

In summer, on the other hand, the roof is the point of attack for the sun's burning rays. Hot roofs result in over-heated attics; while over-heated attics, retaining their heat during the night, make sleep difficult in upstairs rooms. When the sleeping rooms are directly under the roof the discomfort is even greater.

Hence the importance of stopping heat "at the roof line." If heat can thus be stopped there — from going out in winter and from coming in during the summer — a great gain in comfort

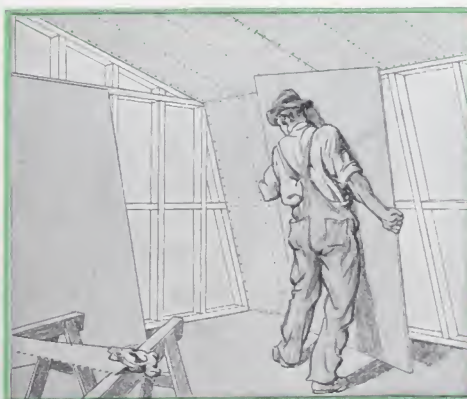
and fuel economy can be made in any home.

Adequate roof insulation, while it cannot alone effect the same results as complete home insulation, protects the most vulnerable part of the home against winter's cold and summer's heat.

This is a fact of special significance to owners of completed homes and to prospective buyers of uninsulated homes. For, in the attics of homes already built, Celotex Insulating Lumber may be quickly, easily and economically applied in such a way as to insure adequate roof insulation.

There are two methods of applying Celotex to the attic. It may be applied over the attic floor or joists, or to the under side of the roof rafters.

The first method, requiring less material, is the more economical. The second, however, transforms the attic at slight expense into a



In completed homes Celotex may be applied directly to the inside of the roof rafters, thus providing adequate roof insulation without trouble and at low cost

pleasant, habitable part of the house, and the owner can add comfortable rooms to meet the demand which always comes with growing families.

This is only one of the uses to which Celotex can be put in completed houses. Keeping in mind the insulating and sound-quieting value of this material it may be utilized to cover old plastered walls and save replastering; to construct cool and dry storage rooms in the basement or any other portion of the house for the safe keeping of fruit and other perishables.

Storm doors and storm houses become veritable vestibules when constructed of Celotex. The protection afforded by Celotex from severe weather can also be gained in many special uses which will become apparent to all when once acquainted with this material.

Details governing the application of Celotex Insulating Lumber will be sent to anyone upon request.

The Basementless House

A modern thought in the construction of dwellings is the omission of the basement. Basements in modern small dwellings are a tradition of the past. They were built to house the heating plant, the winter's supply of food and fuel, and furnish laundry space. In the basementless house all of these utilities may be cared for in a room ten feet square, built upon the ground level, and if the laundry is

omitted, a small heater may be installed at a convenient location in the house, thus eliminating any space especially provided for these purposes.

Celotex Insulating Lumber used in accordance with our specifications makes the basementless house possible and practical. Every frame house should be ventilated under its ground floor to obtain an atmospheric humidity and preserve its under-floor timbers. This ventilation will produce a cold floor in winter and admit dampness at all seasons of the year unless the floor is properly insulated.

Aside from the convenience and compactness of this method of construction, a saving of approximately 20% is effected in the initial cost of the house.

A foundation wall with a maximum of four foot depth is substituted for a ten to twelve foot foundation wall. The concrete cellar floor is omitted; water-proofing and foundation drainage are eliminated; the chimneys find footing at a higher level; the plumbing and heating pipes have shorter runs and all ditches for sewers, gas and water are shallower.

In addition to all of these advantages, it is estimated by the best heating engineers that a basementless house properly insulated will save from 40 to 50% in fuel every year as against a house of equal cubical contents above the ground level of ordinary uninsulated construction and containing a basement.



Palms Auto Tourist Camp near Los Angeles, Calif. Palms Realty Company, owners. Celotex used for exterior finish

THE USE OF CELOTEX

in miscellaneous buildings

*The ideal material for building cottages,
garages, barns, outhouses, etc.*



CELOTEX has many uses outside the home. Summer cottage construction is one of these. To this purpose Celotex Insulating Lumber is admirably adapted. In no other way can so much comfort be built into a summer home for so little money as with Celotex. The cost of a summer cottage constructed with Celotex is no more than the cost of one built with the usual lumber. The comfort of such a cottage, *insulated* against the sun's heat, is a delightful surprise to those who first experience it.

Celotex, used in summer cottage construction, is employed as exterior as well as interior finish. When painted in the usual manner, Celotex has under the most severe conditions proved its ability to resist the effects of weather quite as well as wood lumber.

Many home owners, having learned of the advantages of Celotex insulation in the home, have employed Celotex Insulating Lumber in building new or lining old garages. In cold weather the protection thus provided against sudden drops of temperature is cheaply purchased with Celotex.

The Celotex Company has plans for two economical Celotex garages, single and double. These may be purchased for fifty cents each by anyone interested.

There is an unusually large field for the use of Celotex in the construction and repair of all types of farm buildings. The insulation of all kinds of shelter for live stock results in an actual saving to the farmer of food consumed by animals to produce heat. Poultry houses, brooder houses, dairy barns, hog houses fall within this class and can be economically and satisfactorily constructed according to our specifications.

In addition to the above, rooms and separate buildings may be easily built for the storage of fruit, potatoes and other perishable products.

The farm home itself can be beautified and enlarged by following our general specifications for buildings.

In this booklet only those uses which pertain to home and farm construction are treated. It may be of interest, however, to know that Celotex Industrial Board is used for roof insulation in all types of industrial and commercial buildings by some of the foremost industries in the country, outstanding among which are General Motors Corporation, the DuPont Silk Mills, etc. Millions of feet have been used in the construction of refrigerator cars by the principal railroads in the United States. Acousti-Celotex (a special product) is universally used for acoustical correction in auditoriums, theatres, churches, and schools.

INTERESTING FACTS ABOUT CELOTEX

John Philip Sousa, the Famous Bandmaster, when interviewed after conducting a concert in the Memphis Civic Auditorium where Acousti-Celotex (a special Celotex product) was used for acoustical correction, said "The acoustics are the most nearly perfect I have ever found in any hall in the country."

In this connection, it is interesting to note that The Celotex Company was awarded a "Silver Cup by the Directors of the Third Annual Chicago Radio Show as a token of the excellence of Acousti-Celotex as a material for the acoustical control of sound." This cup was given in recognition of the development of Acousti-Celotex used for absorbing the purity of tone values in broadcasting studios.

The Queal Lumber Company, Des Moines, Iowa, a Celotex dealer, reported that a house on which Celotex was used as sheathing was in the process of construction on June 27, 1924, when the building was struck by a terrific cyclone. The force of the storm was so great that it blew down trees, porches, even a brick wall and other structures, but did not move the walls sheathed with Celotex even a fraction of an inch.

A similar demonstration of the structural strength of Celotex was recorded during the devastating cyclone at Lorain, Ohio.

Many industries in the country have proved that Celotex meets their rigid specifications and are using it in the construction of their plants. The DuPont Company, General Motors Corporation, several divisions of the American Telephone and Telegraph Company and other large industrial corporations are using Celotex for roof insulation and other construction purposes.

Celotex has also been used by most of the prominent railroads and refrigerator car companies for the insulation of refrigerator cars. The New York Central, Pennsylvania Railroad, Southern Pacific, Missouri Pacific, the Great Northern Railroad, etc., are among the railroads operating refrigerator cars in which Celotex is used for insulation.

Celotex has been used by several of the moving picture corporations for the construction of film sets. The Hal E. Roach Studio, the Douglas Fairbanks-Mary Pickford Studio, the Rudolph Valentino Studio are among the film companies that have found Celotex admirably suited for their requirements.

Baby Peggy, the child moving picture actress, uses a small portable dressing room constructed entirely of Celotex. Her directors selected Celotex because it enabled them to build a room that was strong, although light in weight, and very comfortable and quiet.

A number of prominent mercantile houses have built shipping containers out of Celotex. More than 100,000 boxes have been shipped with remarkable success. Many of these boxes were shipped to foreign countries, as Celotex lends itself especially well to ocean shipment, due to its moisture resistance.

During a flood on the West Coast of Florida, a pile of Celotex Insulating Lumber was completely submerged in water for over a week. When the water subsided, investigation showed that only the edges of Celotex had absorbed water, and after drying, the Celotex was in its original perfect condition and was sold for regular building purposes.

WHAT USERS HAVE SAID ABOUT CELOTEX

Following are extracts from some of the hundreds of unsolicited testimonials from users, which are on file in the offices of The Celotex Company. Read what others, speaking from actual experience, say about Celotex Insulating Lumber.

"I am very much pleased with the results obtained by the use of Celotex on various houses where we have used it as sheathing, plaster base and roof insulation.

"Your material not only produces the insulating results claimed by you but also adds great strength and stiffness to the framework of the building. We feel that Celotex should go far in replacing lumber which is becoming more scarce yearly and the grades lowering.

"Our very satisfactory experience with Celotex prompts us to give our unqualified endorsement of it and the service rendered by your company."

FREDERICK STANTON,
Architect,
Chicago, Ill.

"We have used it in practically every way recommended by you and have had uniform success. Our customers are enthusiastic about Celotex as building material and we look forward to a largely increased sale during the coming year."

R. E. MONTGOMERY, JR.,
Vice-President,
Lee Lumber Company,
Memphis, Tenn.

"My furnaces have a combined heating capacity of 1750 sq. ft. of radiating surface—one of 1000 and the other 750. My engineer was of the opinion that I would have to use both of these furnaces simultaneously to keep my house comfortable in extreme weather. The house is 57 x 34 ft., two stories and basement. I have kept the house perfectly comfortable throughout the whole winter with the little furnace alone. This is a remarkable demonstration, to my mind, of the insulating value of Celotex."

W. BEVERLY ROBINSON,
President,
B. & S. H. Thompson & Co., Ltd.,
Montreal

"Structurally, it is a superior material to wood sheathing. The larger the sections used, the stronger the frame. In forming a curved surface for plastering, it saves a great deal of labor over other methods. A building erected with 'Celotex' is

more economical in first cost, far better insulated and free of deflection by shrinkage and failure structurally."

FRANK B. HUNTER,
Architect,
Indianapolis, Ind.

"After a thorough inspection of buildings where the plaster is applied on Celotex, I feel that it is no more than right that I should express my satisfaction regarding Celotex used as a plaster base. These jobs have proven more than satisfactory in many ways but particularly in the fact that the plaster was applied in less time than is usually the case, less material was used and I have never had walls and ceilings so even and free from blemishes as in these particular instances. Celotex as a sheathing under stucco or other exterior finish is beyond doubt an ideal material.

"I can, without any hesitation whatsoever, recommend Celotex as an interior plaster base and exterior sheathing, as well as for insulation and sound deadening, when used according to the specifications furnished by The Celotex Company."

JOHN P. PARRISH,
Architect,
Indianapolis, Ind.

"On my house at Kakhwa Park, I used Celotex as sheathing and plaster base. This is a brick veneer job. The Celotex was applied to the studding on Oct. 15, 1923, and the brick was applied March 15, 1924. During the entire winter the Celotex stood exposed to the weather and showed not even a discoloration.

"I consider this a most remarkable demonstration of the durability and weather resisting qualities of Celotex."

RICHARD W. PETERS,
Erie, Pa.

"It is a real pleasure to express the satisfaction the officers of this Company have found in the material you supplied us for the construction of our houses in this first unit of United Camps, Inc.

"We originally bought Celotex because we thought it would make better houses. We are now buying it because it makes better houses cheaper than wooden houses."

G. P. MILLS,
Pres., The United Camps, Inc.,
Los Angeles, Calif.

BUILD YOUR HOME WITH CELOTEX

*Insure its comfort—safeguard its resale
value—reduce your fuel bills*



WE have not, in this booklet, touched upon the larger economic aspects of Celotex Insulating Lumber.

There is, for instance, a vital significance in the fact that a single day's output of the present Celotex plant equals the amount of lumber that could be cut from a 50-acre tract of pine timber, and that in its daily application and use it saves vast quantities of fuel. On one hand are the rapidly vanishing forests and the mines and other fuel sources of America; on the other the practically limitless supply of raw material for the manufacture of Celotex Insulating Lumber. It requires no great imagination to foresee the tremendous role that Celotex is destined to play in the economic life of the country.

No less important is the contribution which Celotex Insulating Lumber is now making, and will make in ever larger measure, to the well-being of the American people. Homes that are pleasant and attractive, homes that are comfortable and healthful—the nation, with its millions of apartment “cliff dwellers,” needs nothing more urgently than this. And Celotex, by putting such homes within the means of millions who could not hitherto afford them, emerges as a positive force for good in the advancement of better living conditions, happier home life, and hence of better citizenship.

Yet, important as these sides of the Celotex story may be, this booklet is of necessity restricted to your immediate interests as a home builder. We have explained the nature of heat-insulation and described how, for the first time, Celotex has made it available at practically no extra cost. Let us, in summary, review the reasons why *your* home, whether you build it or buy it, should be a Celotex home.

Your home should be built with Celotex because Celotex provides a larger degree of comfort and healthfulness than can be obtained by ordinary construction. This means a home that will be snug and warm on the coldest days of winter. Temperatures will be constant and even in every room. There will be no draughts—the baby may safely play on the floor in any part of the house. In summer, on the other hand, your home will be cooler. There will be no stifling upstairs rooms at night. And, in addition, your home will be pervaded by a restful, nerve-soothing quiet.

Your home should be built with Celotex for economy. We have pointed out that Celotex Insulating Lumber adds practically nothing to the initial cost of building. It gives you the great advantages of complete heat-insulation at little or no extra cost. In still another way, however, Celotex saves money for the home owner. It has been demonstrated time and again that the use of Celotex *reduces fuel bills approximately one-third*. You know what your coal bill

was last winter. One-third of that amount represents the dividend which would have been returned to you had your home been insulated with Celotex Insulating Lumber. Over a period of years the annual saving thus effected with Celotex insulation reduces materially the cost of the house. Celotex homes, in fact, partly pay for themselves in fuel savings.

Your home should be built with Celotex to insure its future resale value. This is a point which, as Celotex comes into wider and wider use, grows increasingly important. Celotex Insulating Lumber is setting new standards of home construction. The public is demanding this new standard of construction. Educational campaigns, national in scope, are familiarizing home builders with the advantages of insulation. Buyers in the future will demand insulated homes, just as today they demand electrically wired homes. You will build wisely if you build your home with Celotex Insulating Lumber.

No matter where you live—in California or Minnesota, Florida or Maine—you and your family will live better, healthier, happier lives in a Celotex home. If you are going to build your own home, specify Celotex for sheathing, plaster base, sound-quieting and insulation. Celotex is now available in all principal cities and there is no reason why you should not enjoy its advantages.

If you are going to buy a house built by someone else, insist upon one built with Celotex. There is no valid reason why any builder who sells you a home cannot use Celotex in its construction. Thousands of ready-built Celotex homes are now being offered for sale throughout the country.

We suggest that you consult with your architect, contractor or lumber dealer on the use of Celotex in your home. We will be glad to send you sample and detailed specification book and give you additional information regarding Celotex Insulating Lumber if you will write us.

THE CELOTEX COMPANY, 645 North Michigan Avenue
Chicago, Illinois



The famous Celotex Bungalow, on Chicago's greatest street, in the heart of the business section. When in Chicago, don't fail to visit this interesting building. It's at 645 North Michigan Avenue. This is one of twenty-five homes illustrated in our plan book "Your Home". These homes were designed by the Northwestern Division of the Architects' Small House Service Bureau, a group of architects controlled by the American Institute of Architects. Send fifty cents for "Your Home". It contains block plans, perspectives, landscape layouts and many valuable suggestions

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All Lumber Dealers Can Supply Celotex

The English word *Insulation*
is derived from the Latin
word *Island*

"The Insulated home is an 'Island' . . . a restful island of cool comfort in a sea of surrounding heat; or an island of snug warmth in encircling cold; or a quiet haven of rest . . . a barrier against the noise of the outside world."— G. A. KELLEY, *Chairman, Housing Committee, National Association of Real Estate Boards.*

CELOTEX
INSULATING LUMBER